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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

LAU, TUNG S

ART UNIT PAPER NUMBER

2863

DATE MAILED: 11/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/660,209

Applicant(s)

MITCHELL ET AL.

Examiner

Tung S Lau

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13, 15, 18 and 20-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-13, 15, 18 and 20-37 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 13, 20, 23, 25, 27, 30, 2, 3, 4, 5, 7, 8, 9, 10, 11, 12, 15, 18, 21, 22, 24, 26, 28, 29, 31, 32, 33, 34, 35, 36, 37 are rejected under 35 U.S.C. 102(e) as being anticipated by Honda et al. (U.S. patent 6,131,073).

Regarding claim 1:

Honda discloses an integrated circuit comprising a temperature sensor providing a temperature measurement of the integrated circuit (Col. 1-2, Lines 55-55); a programmable storage location storing a first temperature limit value (Col. 2-3, Lines 50-19), the programmable storage location accessible via an instruction executed by the integrated circuit (Col. 2-3, Lines 50-19, fig. 1); and compare logic coupled to the temperature sensor and the storage location to provide an indication of a comparison between the temperature measurement and the first temperature limit value (Col. 2-3, Lines 34-9, fig. 2).

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Regarding claim 13:

Honda discloses a method comprising measuring a temperature of an integrated circuit with a temperature sensor (Col. 2, Lines 35-41), the temperature sensor being a circuit within the integrated circuit (Col. 1-2, Lines 55-41); comparing the measured temperature to a first limit value stored in the integrated circuit (Col. 2-3, Lines 50-19); and generating a signal on a first output terminal of the integrated circuit according to the comparison to control the temperature of the integrated circuit (Col. 2-3, Lines 50-19), wherein the signal is asserted when the measured temperature is greater than the first limit value (Col. 2-3, Lines 50-19), and wherein the signal on the first output terminal is deasserted in response to either a control location on the integrated circuit is being accessed or the measured temperature falling below a lower limit value, according to a programmable mode of operation (Col. 2-3, Lines 50-19, fig. 1, unit 22).

Regarding claim 20:

Honda discloses a method including measuring a temperature of an integrated circuit with a temperature sensor (Col. 2, Lines 35-41), the temperature sensor being a circuit within the integrated circuit (fig. 1, unit 12, 4); comparing the measured temperature to a first limit value stored in the integrated circuit; generating a signal on a first output terminal of the integrated circuit according to the comparison to control the temperature of the integrated circuit (Col. 1-2,

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Lines 55-55); and accessing a control location in the integrated circuit to cause the signal to be deasserted (Col. 2-3, Lines 56-19, fig. 1, 2).

Regarding claim 23:

Honda discloses a method comprising measuring a temperature of an integrated circuit with a temperature sensor (Col. 1-2, Lines 55-67), the temperature sensor being a circuit within the integrated circuit (fig. 1); comparing the measured temperature to a first limit value stored in the integrated circuit (Col. 2, Lines 6-55); and generating a signal on a first output terminal of the integrated circuit according to the comparison to control the temperature of the integrated circuit (Col. 2, Lines 6-67); comparing the measured temperature to a second limit value stored in the integrated circuit; and asserting a second signal on a second output terminal of the integrated circuit when the measured temperature is above the second limit value, thereby indicating that temperature has exceeded a safe limit (Col. 2, Lines 30-55).

Regarding claim 25:

Honda discloses an apparatus comprising a processor including means for measuring a temperature of the processor and providing a measured temperature (fig. 1); means for comparing the measured temperature to at least first limit value and a second limit value (Col. 2, Lines 35-55); means for providing a control signal on a first output terminal of the processor according to

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the comparison of the measured temperature to the first limit value the control signal to control the temperature of the integrated circuit (Col. 2, Lines 35-55); and means for providing an indicator signal on a second output terminal of the integrated circuit when the measured temperature is above the second limit value thereby indicating that the measured temperature has exceeded a safe limit (Col. 2, Lines 35-55).

Regarding claim 27:

Honda discloses a microprocessor comprising a temperature sensor providing a temperature measurement of the integrated circuit (Col. 2, Lines 30-55); at least a first and second temperature limit value stored in programmable storage locations in the microprocessor (Col. 2-3, Lines 50-9), the storage locations being accessible via software executed by the microprocessor (fig. 1, unit 22); compare logic coupled to the temperature sensor and to the programmable storage locations storing the first and second temperature limit values (Col. 2, Lines 35-55), to provide respectively a first and second signal indicative of a comparison between the temperature measurement and the first and second temperature limit values; and first and second output terminals coupled to provide respectively, the first and second signals (Col. 2-3, Lines 35-9, fig. 2).

Regarding claim 30:

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Honda discloses an integrated circuit comprising a temperature sensor to provide a measured temperature of the integrated circuit (Col. 2, Lines 35-55); a storage location to hold a first programmable value indicating a first temperature limit (Col. 2-3, Lines 50--9); and compare logic coupled to compare the measure temperature and the first temperature limit and to provide an indication of the comparison (Col. 2-3, Lines 35-9, fig. 2).

Regarding claims 2, 3, 4, 5, 7, 8, 9, 10, 11, 12, 15, 18, 21, 22, 24, 26, 28, 29, 31, 32, 33, 34, 35, 36, 37:

Honda discloses temperature is above limit, below the temperature range (Col. 2, Lines 35-55), deasserts the signals in response to temperature changes according to mode of operation (Col. 2, Lines 30-55, fig. 2, unit 42), storage location is addressable accessible by instruction (fig. 1, unit 20, 22, 24), temperature comparison is external to the IC to assert signal (fig. 1, unit 10, 30, 14, 12), contains second storage unit (fig. 1, unit 24), third storage unit (fig. 1, unit 22, 16), below to a third limit value (Col. 2, Lines 35-55), the IC is microprocessor (fig. 1, unit 20), the signal is used to inhibit cooling device to control temperature (Col. 1-2, Lines 55-30), direct control a cooling device (Col. 1-2, Lines 55-30), use sequence of instruction cause the signal to be deasserted (fig. 5, 6, Col. 1-2, Lines 55-30), a control location in the IC, including at least one cooling device in response to asserted signal (fig. 2, unit 42), software accessible control register (fig. 2, unit 38, 28), indication of the compare logic (fig. 2, unit 42),

control temperature when excess the reference temperature (Col. 2, Lines 35-55), compares to multiple temperatures (Col. 1-2, Lines 55-55).

Claim Objections

2. Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all the limitation of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance: prior art fail to teach the temperature limit value is a panic value.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung S Lau whose telephone number is 703-305-3309. The examiner can normally be reached on M-F 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on 703-308-3126. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-5841 for regular communications and 703-308-5841 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

TC2800 FAX Telephone Numbers: 703-872-9306

TC2800 Customer Service FAX - (703) 872-9317

TL

A handwritten signature in black ink, appearing to read 'J. Barlow', with a long, sweeping horizontal stroke extending to the left.

John Barlow
Supervisory Patent Examiner
Technology Center 2800